



PATENT ABSTRACTS OF JAPAN

(11) Publication number: **07034136 A**(43) Date of publication of application: **03.02.95**

(51) Int. Cl

C21D 9/46**C21D 8/04****C22C 38/00****C22C 38/06**(21) Application number: **05198754**(22) Date of filing: **19.07.93**(71) Applicant: **NIPPON STEEL CORP**(72) Inventor: **YAMADA TERUAKI
UKIANA TOSHIYASU
ODA MASAHIKO****(54) PRODUCTION OF BAKING HARDENABILITY
HIGH STRENGTH COLD ROLLED STEEL SHEET
EXCELLENT IN WORKABILITY****(57) Abstract:**

PURPOSE: To produce a baking hardenability high strength cold rolled steel sheet excellent in workability by subjecting a cold rolled steel sheet having a specified compsn. to recrystallization continuous annealing and rapid cooling treatment under specified conditions and thereafter executing skinpass rolling.

CONSTITUTION: A slab contg., by weight, 0.070 to 0.200% C, $\leq 0.30\%$ Si, 0.50 to 1.50% Mn, $\leq 0.030\%$ P, $\leq 0.025\%$ S, 0.002 to 0.100% sol.Al and $\leq 0.012\%$ N is

subjected to hot rolling and is coiled into a hot rolled steel strip, which is thereafter subjected to cold rolling into a cold rolled steel strip. At the time of subjecting the cold rolled steel strip to recrystallization continuous annealing, it is rapidly heated in the temp. range of $\approx 500^\circ\text{C}$ at 300 to 2000°C/sec ultrarapid heating temp., is held to 730 to 830°C for $\leq 2\text{sec}$, is thereafter rapidly cooled at least to 400°C at 100 to 500°C/sec cooling temp. and is furthermore air-cooled to a room temp. This is subjected to skinpass rolling at 0.5 to 5.0% rolling ratio, by which the high strength cold rolled steel sheet having $\approx 60\text{kgf/mm}^2$ strength and excellent in workability can be produced.

COPYRIGHT: (C)1995,JPO